

Plants

1-2 The student will demonstrate an understanding of the special characteristics and needs of plants that allow them to survive in their own distinct environments. (Life Science)

1.2.1 Recall the basic needs of plants (including air, water, nutrients, space, and light) for energy and growth.

Taxonomy level: 1.2-A Remember Factual Knowledge

Previous/Future knowledge: In kindergarten (K-2.1), students recognized the needs of organisms (including air, water, food, and shelter). In 2nd grade (2-2.1), students will recall the basic needs of animals (including air, water, food, and shelter) for energy, growth, and protection. Students will take this information and expand their knowledge of basic needs of plants in 3rd grade (3-2).

It is essential for students to know that plants have basic needs that provide energy so the plants can grow and be healthy. The basic needs of plants include:

Air

- Plants need air to make their own food and grow.

Water

- Plants need water to make their own food.
- Too much water or too little water could cause the plant to die.

Nutrients

- Plants need special nutrients to help them grow and stay healthy.
- Nutrients can be found in the soil or water.
- Just as with water, too many nutrients or too few nutrients could cause the plant to die.

Space

- Plants need a certain amount of space to grow.
- The space below the ground allows the plant to get the water and nutrients it needs.
- The space above the ground allows the plants to get the light and air it needs.
- If there are too many plants in a particular area, the plant may not get the materials it needs to grow.

Light

- Plants need light to make their own food and grow.
- Plants can get light from the Sun or from indoor light (light bulbs).

It is not essential for students to go beyond the five basic needs as listed at this time.

Assessment Guidelines:

The objective of this indicator is to *recall* that plants have basic needs for energy and growth; therefore, the primary focus of assessment should be to remember what a plant needs and how it relates to plant growth and giving the plant energy. However, appropriate assessments should also require students to *recognize* the basic needs of plants using drawings, symbols, or words.